

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A hot plate for heating a wafer comprising a ceramic substrate, said ceramic substrate having a lower face having a surface roughness of 2 μm or less and an upper face,

wherein a resistance element pattern having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on the lower face of the ceramic substrate.

Claim 2 (Original): The hot plate according to claim 1, wherein the thickness dispersion of the resistance element is $\pm 1 \mu\text{m}$ or less.

Claim 3 (Previously Presented): The hot plate according to claim 1, wherein the thickness of said resistance element is from 0.5 to 500 μm .

Claim 4 (Currently Amended): The hot plate according to claim 1, wherein the thickness of said resistance element is from 1 to 10 μm .

Claim 5 (Previously Presented): The hot plate according to claim 1, wherein said ceramic substrate is at least one kind selected from a nitride ceramic and a carbide ceramic.

Claim 6 (Canceled).

Claim 7 (Previously Presented): The hot plate according to claim 1, wherein said resistance element has a multilayer structure, and among a plurality of layers constituting said resistance element, the layer nearest to the substrate comprises titanium or chromium.

Claim 8 (Previously Presented): The hot plate according to claim 1, wherein said resistance element comprises a first layer comprising titanium; a second layer comprising molybdenum and having a larger thickness than said first layer, on said first layer; and a third layer comprising nickel and having an intermediate thickness between the thickness of said first layer and that of said second layer, on said second layer.

Claim 9 (Previously Presented): The hot plate according to claim 1, wherein said resistance element comprises a titanium layer having a thickness of 0.1 to 0.5 μm , a molybdenum layer having a thickness of 0.5 to 7.0 μm , on said titanium layer, and a nickel layer having a thickness of 0.4 to 2.5 μm , on said molybdenum layer.

Claims 10-13 (Canceled).

Claim 14 (Withdrawn): A process for producing a hot plate wherein a resistance element having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on an insulating substrate, comprising forming said resistance element by a film-depositing method based on a dry process.

Claim 15 (Withdrawn): A process for producing a hot plate wherein a resistance element having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on an insulating substrate, comprising forming said resistance element by RF sputtering.

Claim 16 (Withdrawn): A process for producing a hot plate wherein a resistance element having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on an insulating substrate,

comprising printing a resistance element paste made of scaly noble metal powder and firing the paste.

Claim 17 (Previously Presented): A hot plate for heating a wafer comprising a ceramic substrate, said ceramic substrate having a lower face having a surface roughness of 2 μm or less and an upper face,

wherein a resistance element pattern having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on the lower face of the ceramic substrate, and

wherein said resistance element pattern is formed by a dry process.

Claim 18 (Previously Presented): The hot plate according to claim 17, wherein the thickness dispersion of the resistance element is $\pm 1 \mu\text{m}$ or less.

Claim 19 (Previously Presented): The hot plate according to claim 17, wherein the thickness of said resistance element is from 0.5 to 500 μm .

Claim 20 (Previously Presented): The hot plate according to claim 17, wherein the thickness of said resistance element is from 1 to 10 μm .

Claim 21 (Previously Presented): The hot plate according to claim 17, wherein said ceramic substrate is at least one kind selected from a nitride ceramic and a carbide ceramic.

Claim 22 (Previously Presented): The hot plate according to claim 17, wherein said dry process is RF sputtering.

Claim 23 (Previously Presented): A hot plate for heating a wafer comprising a ceramic substrate, said ceramic substrate having a lower face having a surface roughness of 2 μm or less and an upper face,

wherein a resistance element pattern having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on the lower face of the ceramic substrate, and

wherein said resistance element pattern is made of scaly noble metal powder.

Claim 24 (Previously Presented): The hot plate according to claim 23, wherein the thickness dispersion of the resistance element is $\pm 1 \mu\text{m}$ or less.

Claim 25 (Previously Presented): The hot plate according to claim 23, wherein the thickness of said resistance element is from 0.5 to 500 μm .

Claim 26 (Previously Presented): The hot plate according to claim 23, wherein the thickness of said resistance element is from 3 to 10 μm .

Claim 27 (Previously Presented): The hot plate according to claim 23, wherein said ceramic substrate is at least one kind selected from a nitride ceramic and a carbide ceramic.

Claim 28 (Previously Presented): A process comprising heating a wafer with the hot plate according to claim 1.

Claim 29 (Currently Amended): The A hot plate for heating a wafer comprising a ceramic substrate, said ceramic substrate having a lower face having a surface roughness of 2 μm or less and an upper face according to claim 1,

wherein

a resistance element pattern having a thickness dispersion of $\pm 3 \mu\text{m}$ or less is formed on the lower face of the ceramic substrate,

the thickness dispersion being the larger of the absolute value of $T_{\text{max}} - T_{\text{av}}$ and the absolute value of $T_{\text{min}} - T_{\text{av}}$, T_{av} being an average thickness obtained by averaging thicknesses of arbitrarily selected 10 points of the resistance element, T_{av} being within a range of 3 to 500 μm , T_{max} being the maximum thickness of said 10 points, and T_{min} being the minimum thickness of said 10 points.

Claim 30 (New): The hot plate according to claim 29,
wherein the thickness dispersion of the resistance element is $\pm 1 \mu\text{m}$ or less.

Claim 31 (New): The hot plate according to claim 29,
wherein the thickness of said resistance element is from 0.5 to 500 μm .

Claim 32 (New): The hot plate according to claim 29,
wherein the thickness of said resistance element is from 1 to 10 μm .

Claim 33 (New): The hot plate according to claim 29,
wherein said ceramic substrate is at least one kind selected from a nitride ceramic and a carbide ceramic.

Claim 34 (New): The hot plate according to claim 29,

wherein said resistance element has a multilayer structure, and among a plurality of layers constituting said resistance element, the layer nearest to the substrate comprises titanium or chromium.

Claim 35 (New): The hot plate according to claim 29,

wherein said resistance element comprises a first layer comprising titanium; a second layer comprising molybdenum and having a larger thickness than said first layer, on said first layer; and a third layer comprising nickel and having an intermediate thickness between the thickness of said first layer and that of said second layer, on said second layer.

Claim 36 (New): The hot plate according to claim 29,

wherein said resistance element comprises a titanium layer having a thickness of 0.1 to 0.5 μm , a molybdenum layer having a thickness of 0.5 to 7.0 μm , on said titanium layer, and a nickel layer having a thickness of 0.4 to 2.5 μm , on said molybdenum layer.

Claim 37 (New): The hot plate according to claim 29,

wherein said resistance element pattern is formed by a dry process.

Claim 38 (New): The hot plate according to claim 37,

wherein the thickness dispersion of the resistance element is $\pm 1 \mu\text{m}$ or less.

Claim 39 (New): The hot plate according to claim 37,

wherein the thickness of said resistance element is from 0.5 to 500 μm .

Claim 40 (New): The hot plate according to claim 37,

wherein the thickness of said resistance element is from 1 to 10 μm .

Claim 41 (New): The hot plate according to claim 37,

wherein said ceramic substrate is at least one kind selected from a nitride ceramic and a carbide ceramic.

Claim 42 (New): The hot plate according to claim 37,

wherein said dry process is RF sputtering.

Claim 43 (New): The hot plate according to claim 29,

wherein said resistance element pattern is made of scaly noble metal powder.

Claim 44 (New): The hot plate according to claim 43,

wherein the thickness dispersion of the resistance element is $\pm 1 \mu\text{m}$ or less.

Claim 45 (New): The hot plate according to claim 43,

wherein the thickness of said resistance element is from 0.5 to 500 μm .

Claim 46 (New): The hot plate according to claim 43,

wherein the thickness of said resistance element is from 3 to 10 μm .

Claim 47 (New): The hot plate according to claim 43,

wherein said ceramic substrate is at least one kind selected from a nitride ceramic and a carbide ceramic.

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Claim 48 (New): A process comprising heating a wafer with the hot plate according to claim 29.

DISCUSSION OF THE AMENDMENT

Claims 1-5, 7-9, and 17-29 are pending.

Claims 14-16 are withdrawn.

Claim 29 is rewritten in independent form.

Claims 30-48 are added.

Support for the amendment is found in the Specification and Claims, as originally filed.

No new matter is believed to be added upon entry of the amendment.

Upon entry of the amendment, Claims 1-5, 7-9, and 17-48 will be pending.